Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Delete, Delete, Delete	)	GN Docket No. 25-133
	)	

COMMENTS OF PIXXEL SPACE TECHNOLOGIES, INC.

Pixxel Space Technologies, Inc. ("Pixxel"),[1] through its counsel, submits these comments in the above-captioned proceeding inviting public input on the removal of rules that would facilitate U.S. investment, infrastructure development, and the provision of innovative and advanced capabilities.[2] Pixxel applauds the efforts of the Federal Communications Commission ("FCC" or "Commission") and requests the FCC to remove its legacy satellite surety bond requirement (47 C.F.R. § 25.165), which is no longer relevant in this modern space age and imposes unnecessary costs and restrictions on commercial satellite operators. As this Commission and the new Administration have recognized, ensuring that FCC regulations support growth of the U.S. space industry and America's continued leadership in this field is vital for this country's future.[3]

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[1] Pixxel is a U.S. space data company based in El Segundo, California. *See* https://www.pixxel.space/ (last visited April 2, 2025). Pixxel builds its own hyperspectral earth imaging satellites and creates the analytical tools to mine insights from the collected hyperspectral data. Upon full deployment, the constellation will provide global coverage every 24 hours, with the aim of detecting, monitoring and predicting global phenomena.

[2] *See Delete, Delete, Delete*, GN Docket No. 25-133, Public Notice, DA 25-219, at 1 (March 12, 2025) ("*Delete Public Notice*").

[3] *See, e.g., Transcript of President Donald Trump's Speech to a Joint Session of Congress*, AP (2025), https://apnews.com/article/trump-speech-congress-transcript-751b5891a3265ff1e5c1409c391fef7c ("We are going to conquer the vast frontiers of science, and we are going to lead humanity into space . . . . "); *Assessment and Collection of Space and Earth Station Regulatory Fees for Fiscal Year 2024, Further Notice of Proposed Rulemaking., MD Docket No. 24-85, FCC 25-11,* at Statement of Chairman Brendan Carr (rel. Feb. 25, 2025)

The surety bond requirement was adopted over twenty years ago and has outlived its usefulness.[4] At the time, missions took years to plan, satellites cost hundreds of millions of dollars and required years to manufacture, and launches were infrequent and costly.[5] Thus, satellite missions were extremely capital intensive and, as a result, inherently speculative. Indeed, the bond requirement was adopted on the heels of first major, contested satellite processing round in which many, if not all, of the applicants failed to deploy their proposed satellite systems.[6] Thus, at the time, there was a genuine concern by the FCC that satellite applicants would not launch and operate their proposed systems in a timely manner and that applications were being filed for speculative and spectrum warehousing purposes.

Fast forward two decades, missions are planned in months, commercial-off-the-shelf (COTS) satellite equipment is commonplace, small form factor satellites are capable and feasible, multiple launches occur weekly, and costs for satellites and launches are orders of

("[I]t is important that the FCC put the right regulatory framework in place—one that will further fuel the space industry's growth.").

[4] *Amendment of the Commission's Space Station Licensing Rules and Policies*, IB Docket Nos. 02-34, 02-35, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, 10824-27, ¶¶ 166-172 (2003) ("*First Bond Order*").

[5] *See Amendment of the Commission's Space Station Licensing Rules and Policies*, Notice of Proposed Rulemaking, IB Docket Nos. 02-34, 00-248, 17 FCC Rcd 3847, ¶ 112 (2002) (stating that "[a] single geostationary satellite can easily cost several hundred million dollars to design, build and launch."); *see id*. at n. 148 ("It typically costs approximately $225 million to build and launch a satellite and takes three to four years to lease it out") (citation omitted); *see also Columbia Communications Corporation, Authorization to Launch and Operate a Geostationary C-band Replacement Satellite in the Fixed-Satellite Service at 37.5° W.L.*, Memorandum Opinion And Order, 16 FCC Rcd 20176, 20180 ¶ 12 (2001) (acknowledging a $280 million estimate to construct, launch, and operate a satellite for one year).

[6] *See First Bond Order*, 18 FCC Rcd 10823, ¶ 162 n.383 (referencing comment that "only 11 of 19 participants in the 1983 C and Ku-band processing round launched their satellites, 3 of 23 participants in the 1985 processing round, and 11 of 19 in the 1988 processing round.") (citation omitted).

magnitude cheaper.[7] These developments have greatly transformed the satellite industry. As the FCC itself has recognized, the number of satellite applications filed with the FCC has increased by tens of thousands over the past few years, and similarly, the number of satellites launched during that period has increased substantially.[8] Under such circumstances, there can be no real concern that applicants will not launch and operate their proposed systems in a timely manner or are submitting satellite applications for speculative or spectrum warehousing purposes. Accordingly, the surety bond requirement should be eliminated.

Indeed, the FCC has recognized these changes in the industry and adjusted its practices accordingly. For example, the Space Bureau routinely waives the bond requirement for satellites that are launching imminently by delaying the deadline for posting a surety bond until after the expected launch.[9] The Space Bureau's actions are logical and demonstrate that the bond

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[7] *See, e.g.*, Tiziana Barghini, *The Space Boom is Here*, Global Finance Magazine (Apr. 2, 2025) https://gfmag.com/technology/space-tech-companies-financing-investment/ ("Once deemed excessively costly and unproductive, space exploration has surged in the past decade . . . and the number of commercial missions and satellite deployments has skyrocketed.").

[8] *See, e.g., Expediting Initial Processing of Satellite and Earth Station Applications*, Report and Order and Further Notice of Proposed Rulemaking, IB Docket Nos. 22-411, 22-271, 38 FCC Rcd 8838, 8904 (noting a backlog of 56,000 satellite applications); *see also* Press Release, Satellite Industry Association, *Commercial Satellite Industry Continues Historic Growth while Dominating Global Space Business – SIA Releases 27th Annual State of the Satellite Industry Report* (June 13, 2024) https://sia.org/commercial-satellite-industry-continues-historic-growth-dominating-global-space-business-27th-annual-state-of-the-satellite-industry-report/ ("By the end of 2023, a total of 9,691 active satellites circled the earth, an increase of 361 percent over the past five years."); *Space Bureau Announces Temporary Expedited Processing Procedures for Earth Station Applications Seeking Special Temporary Authority*, Public Notice, DA 25-207 (March 10, 2025).

[9] *See, e.g.*, Pixxel Space Technologies, Inc., Grant, ICFS File Nos. SAT-LOA-20240523-00110, SAT-AMD-20240808-00175, at ¶ 12 (March 3, 2025) (noting that the "uniquely short timeframe between grant of [the] license and planned launch" warrants a partial waiver of the bond requirement); Stamp Grant, Loft Orbital Solutions, Inc., ICFS File No. SAT-LOA-20220606-00057, at Condition 21 (granted Nov. 15, 2022) (allowing applicant a 90-day period to post a surety bond in light of impending launch); Stamp Grant, Momentus Space, LLC, ICFS File Nos. SAT-LOA-20220504-00047 and SAT-AMD-20220729-00075, at Condition 15 (granted Nov.

requirement is, in many cases, no longer necessary.[10] Forcing satellite operators to post a surety bond for a short period before the authorized satellites are launched and the bond collateral is returned would waste resources and serve no purpose.

The FCC also has recognized, since the adoption of the bond, that small non-geostationary satellite systems now regularly launch within one year of licensing and, as a result, has allowed qualifying systems a one-year grace period for posting bonds.[11] Moreover, the FCC has over the last several years substantially increased its annual regulatory fees and is proposing to adopt fee requirements for all authorized, not just operational, systems.[12] This change eliminates the need for a bond because it puts substantial financial pressure (*i.e.*, multiple hundreds of thousands of dollars per license) on licensees to expeditiously deploy their systems.[13]

As a practical matter, the cost for posting a surety bond is significant for emerging space companies and imposes unnecessary expenses. In some cases, especially for new companies deploying cubesats or other small satellites, the bond itself (typically $1.67 million for the first

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15, 2022) (providing applicant a 90-day period to post a surety bond in light of impending launch).

[10] See *Delete Public Notice*, at 3 (seeking comment on whether experience gained in the implementation of a given rule or marketplace and technological changes provide reason to believe that the rule is unnecessary or inappropriate).

[11] *See Streamlining Licensing Procedures for Small Satellites*, Report and Order, IB Docket No. 18-86, 34 FCC Rcd 13077, 13112-13, ¶¶ 93-97 (2019) ("*Streamlining Order*").

[12] *See Assessment and Collection of Space and Earth Station Regulatory Fees for Fiscal Year 2024*, Further Notice of Proposed Rulemaking., MD Docket No. 24-85, FCC 25-11, at 20-21 ¶ 50 n.126 (rel. Feb. 25, 2025) ("The annual regulatory fee for NGSO space stations "other" increased from $340,005 for FY 2023 to $964,200 for FY 2024. The annual regulatory fee for "less complex" NGSO space stations increased from $141,670 for FY 2023 to $441,925 for FY 2024.").

[13] *See Delete Public Notice*, at 4 (seeking comment on whether changes in the broader regulatory context render rules unnecessary or inappropriate).

year) can be more than the cost of a satellite. Moreover, in addition to paying a fee, the satellite operator must often provide the full bond amount as collateral to the surety company, which prevents the satellite operator from investing those funds into the business. Thus, the bond requirement is not conducive to the growth of the space industry and contrary to objectives of the new Administration and this Commission.[14]

For the above reasons, the FCC should eliminate the bond requirement. Alternatively, the FCC could establish a one-year (rather than a 30-day) deadline for posting the surety bond.[15] As another alternative, if the FCC believes the bond should apply to some applicants, the bond could be imposed on a case-by-case basis on those few applicants for which a surety bond would be appropriate.

Respectfully submitted,

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[14] *See supra* note 3.

[15] As the FCC has recognized, many systems launch within that time frame. *See supra* note 11.